

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan
Initial I Annual _____ Special _____ Date of Test 11-11-63
Company PAN AMERICAN PETROLEUM CORP. Lease Gallegos Canyon Unit Well No. 146
Unit I Sec. 6 Twp. 27N Rge. 12W Purchaser _____
Casing 4-1/2 Wt. 10.5 I.D. 1.932 Set at 5970 Perf. 5972-76 To 5985-96
Tubing 2-3/8 Wt. 4.70 I.D. 1.995 Set at 5937 Perf. Open Ended To _____
Gas Pay: From 5972 To 5996 L 5924 xG .70 est. -GL 4119 Bar.Press. _____
Producing Thru: Casing I Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual _____
Date of Completion: 11-4-63 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Pressure) (Choke) (Minimum) Type Taps Flange

No.	Flow Data				Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI	7 days								
1.	2"	0.730	466			2040	60° est. 1217	2063	60° est. 3 hrs.
2.									
3.									
4.									
5.									

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3450		466	1.000	.9258	1.061	5830
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

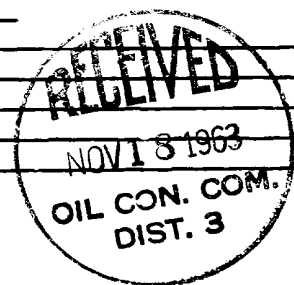
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2075 P_c 4,905,625

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.									
2.									
3.									
4.									
5.									

Absolute Potential: 8061 MCFPD; n .75

COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Box 480, Santa Fe, New Mexico
AGENT and TITLE F. L. Mahery, District Engineer
WITNESSED By [Signature]
COMPANY F. W. Poell

REMARKS



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia
- P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia
- P_f = Meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .